

Concurrent validity of Pictorial Fit-Frail Scale (PFFS) in Older Adults Male Veterans with varying levels of Health Literacy

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*Disclosed no conflict of interest
You MAY take photos of this presentation

Background - Frailty

- Clinical syndrome characterized by multisystemic physiological decline associated with high risk for adverse health outcomes
- Frailty and inadequate health literacy are common in the older population
- There are more than 75 assessment tools

Background- Frailty Assessment

- Pictorial Fit-Frail Scale (Theou et al., 2019)
 - Simple and comprehensive visual image-based questionnaire
 - Designed to assess the degree of frailty

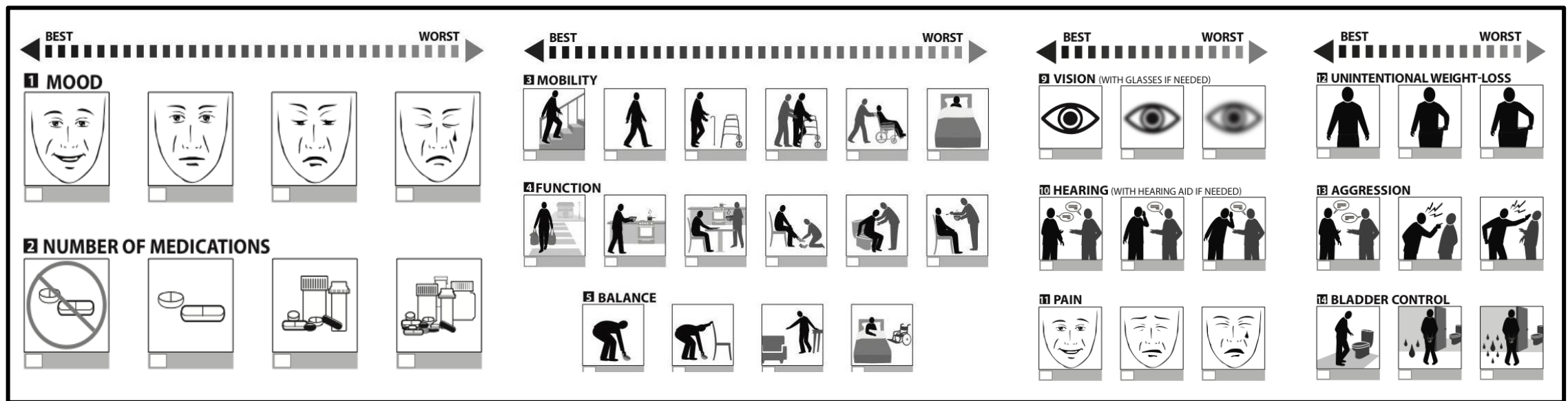
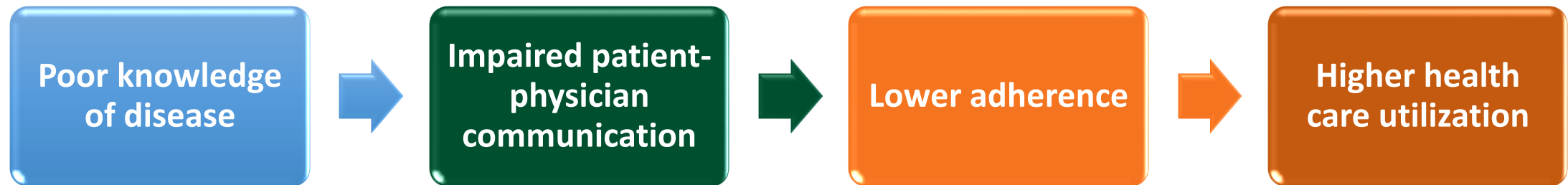


Figure 1: Components of the Pictorial Fit-Frail Scale (PFFS)

Background- Health Literacy

- Health literacy:
 - Is the capacity to obtain, process, and use basic health information and services needed to make health decisions
 - Research indicates association of inadequate health literacy with:



Purpose

- **Primary:**
 - Evaluate the concurrent validity of PFFS in assessing frailty status in a group of racially and ethnically diverse older Veterans with varying levels of health literacy and cognition
- **Secondary:**
 - Evaluate the feasibility of implementing this instrument in primary care practice

Methods

- Study Design:
 - Cross-Sectional Study
- Setting:
 - Community-dwelling older male Veterans ≥ 65 yo
 - Miami VAHS
- Evaluation of Frailty:
 - Pictorial Fit-Frail Scale (PFFS)
 - Frail Scale
 - 31-Items VA Frailty Index (VA-FI)

Methods (Calculation of VA-FI 31-items)

[illegible]

Figure 2: Components of the Pictorial Fit-Frail Scale (PFFS)

Methods

- Evaluation of Health Literacy (HL):
 - Newest Vital Sign (NVS)
- Evaluation of Mood Status
- Evaluation of Cognitive Status
- Evaluation of Functional Status

Nutrition Facts			
Serving Size		½ cup	
Servings per container		4	
Amount per serving			
Calories	250	Fat Cal	120
			%DV
Total Fat	13g	20%	
Sat Fat	9g	40%	
Cholesterol	28mg	12%	
Sodium	55mg	2%	
Total Carbohydrate	30g	12%	
Dietary Fiber	2g		
Sugars	23g		
Protein	4g	8%	
*Percentage Daily Values (DV) are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.			
Ingredients: Cream, Skim Milk, Liquid Sugar, Water, Egg Yolks, Brown Sugar, Milkfat, Peanut Oil, Sugar, Butter, Salt, Carrageenan, Vanilla Extract.			

Methods- Statistical Analysis

- Descriptive socio-demographic
- Pearson Correlation coefficient (PFFS, FRAIL scale and VA-FI)
- Receiver Operating Characteristic (ROC): PFFS and FRAIL scale in comparison to the VA-FI, their tradeoff sensitivity and specificity

Results- Participant Characteristics

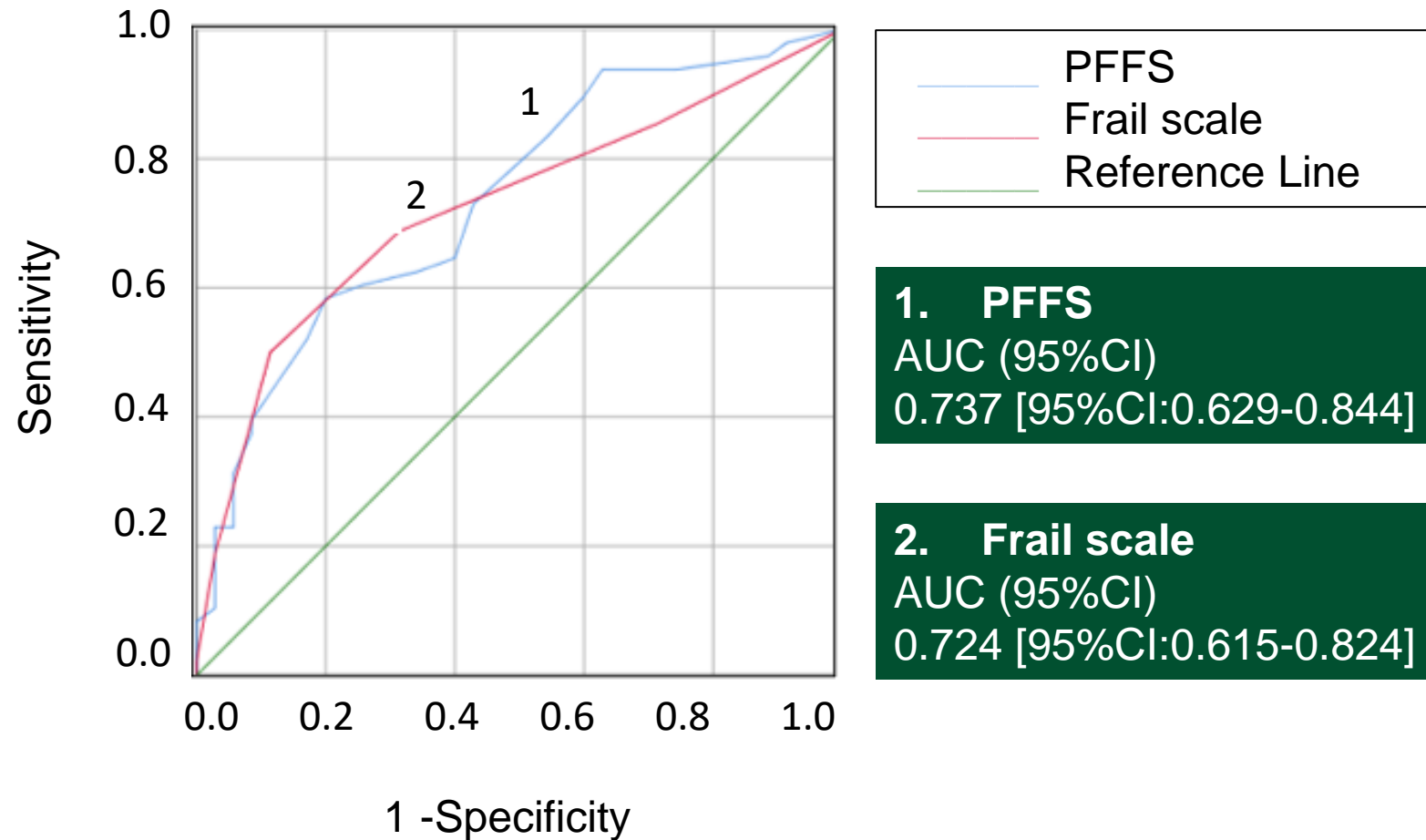
Table 1. Participants Characteristics				
	Non-Frail n=35 (42.17%)	Frail n=48 (57.83%)	Total n=83 (100%)	p-value
Age, mean (SD)	75.74 (5.36)	76.54 (6.49)	76.20 (6.02)	.550
Caucasian, n (%)	22 (33.3%)	32 (66.7%)	54 (65.1%)	.719
Not Hispanic, n (%)	25 (22.9%)	37 (77.1%)	62 (74.7%)	.460
Married, n (%)	20 (54.2%)	22 (45.8%)	42 (50.6%)	.756
At least 2 ADLS, n (%)	0 (0%)	6 (100%)	6 (7.2%)	.037
PFFS, mean (SD)	7.77 (5.35)	13.60 (7.42)	7.42 (7.20)	<.0001
FRAIL scale, mean (SD)	1.17 (1.04)	2.25 (1.37)	1.80 (1.35)	<.0001
VA-FI, mean (SD)	.11 (.06)	.34 (.10)	.25 (.14)	<.0001
Inadequate HL, n (%)	19 (47.5%)	21 (52.5%)	40 (48.2%)	.343
Cognitive impairment, n (%)	5 (29.4%)	12 (70.6%)	17 (20.4%)	.232
Depression PS, n (%)	2 (5.7%)	6 (12.5%)	8 (9.6%)	.458

Frail 57.83%
Non-Frail 42.17%

SD= standard deviation; n= number of participants; ADLS= activities of daily living; PFFS= Pictorial Fit Frailty Score; VA-FI= VA Frailty Index; HL= health literacy; PS= positive screen, CI= cognitive impairment. Significant differences are in bold (p<.05).

Results- ROC Curve

Figure 3 . ROC curve comparing FRAIL scale and PFFS against VA-FI on the assessment of frailty



Discussion and Conclusions

- The PFFS is a feasible instrument in the assessment of frailty in racially and ethnically diverse older Veterans with varying levels of health literacy and cognitive status
- The PFFS exhibits comparable diagnostic accuracy to the FRAIL scale and VA-FI

Strengths And Limitations

- Strengths:
 - Administration of several validated scales
 - Electronic health record data
- Limitations:
 - Current SARS-CoV-2 pandemic
 - Small sample size
 - Only 1 center – VA Miami
 - Cross-Sectional study

Next Step

- Larger prospective studies are needed to further validate the PFFS use in Older Veterans with inadequate health literacy using other clinical settings, databases and diverse populations including a representation of the female gender

Any questions?

Thank you!

Gracias!

شکرا (Shukran)

شکریہ (Shukriah)

धन्यवाद (Dhanyavaad)

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